

### Abstract

Process for preparing a UV-transparent pressure sensitive adhesive which has a UV transparency at 300 nm of more than 95%.comprising:

(a) polymerizing a monomer composition comprising

(a1) from 75 to 99.8% by weight of acrylic esters and/or methacrylic esters of the formula  $\text{CH}_2=\text{CH}(\text{R}_1)(\text{COOR}_2)$ , where  $\text{R}_1$  is H or  $\text{CH}_3$  and  $\text{R}_2$  is an alkyl chain having 1 to 20 carbon atoms;

(a2) from 0 to 10% by weight of acrylic acid and/or methacrylic acid of the formula  $\text{CH}_2=\text{CH}(\text{R}_1)(\text{COOH})$ , where  $\text{R}_1$  is H or  $\text{CH}_3$ ;

(a3) from 0.2 to 5% by weight of olefinically unsaturated monomers which contain at least one UV-crosslinking functional group per monomer; and

(a4) from 0 to 20% by weight of olefinically unsaturated monomers which contain at least one functional group per monomer;

to form a copolymer composition having a weight average molecular weight of less than 300,000 g/mol, and

(b) mixing in from 2 to 20% by weight, based on the weight of copolymer composition, of a silicate filler before or after the polymerization of the monomer composition in step (a), the silicate filler having a maximum particle diameter of 50 nm.